

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

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MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2018/2019

PCA 0016 – COMPUTER APPLICATIONS AND PROGRAMMING

(Foundation in Engineering)

18 OCTOBER 2018
2.30 p.m. – 4.30 p.m.
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 3 pages excluding the cover page with **FIVE** questions only.
2. Attempt **ALL** questions. Distribution of the marks for each question is given.
3. Please write all your answers in the Answer Booklet provided.

Answer **ALL** questions.

Question 1: [20 marks]

- a) Computers offer us many advantages in today's hectic world. A responsible computer user should be aware of both the advantages and the disadvantages of its use. Identify FOUR advantages and FOUR disadvantages of computer's use. [8 marks]
- b) Computers process and store large amount of data used by individuals. List down any FOUR types of computers that are normally categorized as microcomputers. [4 marks]
- c) Compression are used to store data by making the file size small to save space on storage devices. Briefly explain the TWO types of compression techniques and how they work? Give an example of graphic format that uses these compression techniques. [8 marks]

Question 2: [20 marks]

- a) The microprocessor in a computer contains two main components that work together to perform processing operations. Name the TWO main components and describe their main tasks. [7 marks]
- b) Cathode ray tube (CRT) monitors are being replaced with flat screen monitors. List down FIVE advantages on using the flat screen monitors over CRT monitors. [5 marks]
- c) With the easy accessibility of online services, users are placing files on internet hard drive or storages. Give TWO advantages and TWO disadvantages of using online storages. [8 marks]

Continued...

Question 3: [20 marks]

- a) Briefly explain FIVE functions of an operating system installed on computers. [10 marks]
- b) What is the purpose of the following utility software:
i. Disc burning software
ii. Disk defragmenter [4 marks]
- c) Application software are available in a variety of forms. Briefly explain the following form of application software and give an example of each form. [6 marks]
i. Packaged software
ii. Freeware

Question 4: [20 marks]

- a) Write down the 6 steps in problem solving. [6 marks]
- b) Sketch a flow chart based on the following pseudo code: [6 marks]
a. Read in a value for the CGPA
b. Check that it is either less than 2.0 or greater than or equal to 2.0
c. If the value is less than 2.0 output a message "Under Probation"
d. Otherwise output the message "Pass"
- c) Write a program segment in Visual Basic to calculate the total ticket price to enter an amusement park. Use the following control names that correspond to the controls used on the form, txtAdult, txtChildren, txtAdultPrice, txtChildrenPrice and txtTotal. The code segment is attached to the Calculate button. [8 marks]

Amusement Park

Admission Ticket

Adult x 5.00 =

Children x 2.50 =

Total

Continued...

Question 5: [20 marks]

- a) Sketch and label the THREE basic network topologies used in a network. [6 marks]
- b) Sketch a hybrid network topology that comprises of all the basic topologies from part (a). [4 marks]
- c) List down and briefly explain any FIVE different wireless transmission media used in communication. [10 marks]

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